

**REMARKS**

Claims 1-5, 20, 21, 24 and 26-31 are pending in the application.

Claim 1 and 5 have been amended.

Claims 26-31 have been added.

Claims 1 and 5 have been amended to correct grammar in claim 1 and for clarity and to distinguish the method by including the limitation of the “tapered” sides extending from the lower panel to assist in the removal molding equipment during manufacture and further distinguish the support structure. Support for the amendments to claims 1 and 5 may be found in the specification, at least, at paragraph [0028].

**Claim Rejection Under § 102(b) Based on Rashid et al. U.S. Patent No. 5,536,060 (Rashid)**

The Examiner has rejected claims 1-2, 6-10, 14 and 24-25 under § 102(b) as unpatentable over Rashid. The Examiner has alleged that Rashid teaches a method of manufacture wherein all of the elements of the claimed invention are recited. Page 3 of the Official Action dated August 17, 2006. Applicants respectfully traverse the rejection.

In order to reject a claim under 35 U.S.C. § 102, the Examiner must demonstrate that each and every claim element is contained in a single prior art reference. *See* M.P.E.P. § 2131 (August 2004). Rashid does not meet this requirement.

In the claimed invention, the upper panel is substantially planar and lower panel is coplanar to ensure contact of the projections from the lower section and for structural integrity. Thus, the Rashid configuration would not be acceptable in the claimed invention because, for example, the coplanar surfaces of the claimed invention are flat and not contoured to have a surface for adhesion and contact.

In addition, in the claimed invention, the peripheral lips of the upper panel and lower panel are engaged and bonded entirely around the periphery of the outer panel and is a visible component of the assembly. In contrast, the “bonding” in Rashid there are three panels, an outer curved panel, and inner lining with corrugations and a lower panel. The middle liner with corrugations is not substantially planar and the peripheral edges are not connected as claimed. Instead, the upper and lower panel are connected on the periphery and the middle layer with the corrugation is adhered inside to the lower panel. Contact is between the inner panel and a “third” panel described in Rashid and limited to the inner and outer walls, not a visible part of the door.

Column 3, lines 58-62. This difference clearly illustrates the limitation regarding adhesion of the lower panel to the upper panel, key to the structural design, has not been met.

Appreciating these differences, Rashid does not expressly or inherently recite all of the limitation of the rejected claims. Therefore, applicants respectfully submit that the rejection of claims 1-2, 6-10, 14 and 24,25 as anticipated by Rashid is improper and should be withdrawn.

**Claim Rejection Under § 102(b) Based on Fujimoto US 2004/0021342 (“Fujimoto”)**

The Examiner has rejected claims 1-2, 6-10, 14 and 24-25 under § 102(b) as unpatentable over Fujimoto. The Examiner has alleged that Fujimoto teaches a method of manufacture wherein all of the elements of the claimed invention are recited. Page 3 of the Official Action dated August 17, 2006. Applicants respectfully traverse this rejection.

The paneled hood disclosed by Fujimoto does not anticipate the invention because the panel is made of a metal alloy (claim 4; paragraphs [0001], [0097], [0146], [0147], and [0149]); Fujimoto does not disclose the use of thermoplastic panels. In contrast, the claimed invention is a composite panel comprising a moldable thermoplastic panel that is lighter weight and more easily liftable and removable, compared to metal. The thermoplastic material used in applicants’ invention may be high density polyethylene (HDPE), thermoplastic olefin (TPO) or other suitable rugged and dimensionally stable thermoplastic material.” Page 6, paragraph [0023]. The panel taught in Fujimoto is used as a car hood panel. Paragraph 16. One of ordinary skill in the art would understand that the potential impact taught by Fujimoto refers to potential collisions between the front hood of a car and pedestrians while a car is moving forward. Paragraph [0125]. Indeed, the car hood panel taught in Fujimoto was designed specifically to protect pedestrians upon potential impact with a hood of a car, i.e., the front of the car, as opposed to the rear (Figure 9a; paragraph [0027], “... along the border line from the ground surface at the car body front to the hood impact position”). Thus its design is based on these structural features, unlike the claimed invention which is based on a lightweight cover.

Appreciating these differences, Fujimoto does not expressly or inherently recite all of the limitation of the rejected claims. Therefore, applicants respectfully submit that the rejection of claims 1-2, 6-10, 14 and 24,25 as anticipated by Fujimoto is improper and should be withdrawn.

**Claim Rejection Under § 102(e) Based on Myers U.S. Patent No. 6,857,683 (“Myers”)**

The Examiner has rejected claims 1-2, 4-10, 12-14 and 20-25 under § 102(e) as unpatentable over Myers. The Examiner has alleged that Myers teaches a method of manufacture wherein all of the elements of the claimed invention are recited. Page 3 of the Official Action dated August 17, 2006. Applicants respectfully traverse this rejection.

Myers does not disclose a method for making a composite panel wherein the projections which “contact” both a first and second panel, are tapered so as to allow separation from the molding apparatus from which it is formed and therefore does not anticipate the claims of the present invention as amended herein. Specifically, Myers is a one-piece truck bed cover which discloses a plurality of “squared” supports. Column 4, lines 1-10. This “key feature” is critical to Myers as it is based on the desired structural strength and rigidity desired. Column 4, lines 47 -67 and column 5, lines 1-2. In contrast, the claimed invention is a composite panel formed of two separate pieces.

Additionally, Myers does not disclose two distinct groups of projections having a uniform but separate height as in claim 5 of the claimed invention. Further, there is no necessity for this in the Meyers invention. The top surface of the cover (12) in Myers (shown upside down in Fig. 3) is curved and not substantially planar so as to adhere to the projections along all coplanar surfaces. Instead the support structure is adhered only where the contact adheres the periphery.

Appreciating these differences, Myers does not expressly or inherently recite all of the limitation of the rejected claims. Therefore, applicants respectfully submit that the rejection of claims 1-2, 4-10, 12-14 and 20-25 as anticipated by Meyers is improper and should be withdrawn.

**Claim Rejection Under §103(a) Based on Fujimoto in view of Corder et al. U.S. Patent No. 6,568,495 (“Corder”)**

The Examiner has rejected claims 20 through 23 under 35 U.S.C. § 103(a) as being unpatentable over Fujimoto in view of Corder. As discussed herein, the Examiner takes the position that Fujimoto teaches all of the elements of the claimed invention. The Examiner further believes that the combination of Fujimoto with Corder, which teaches use of reinforced panel for use as a tonneau, renders the claimed invention obvious. Claims 22 and 23 have been canceled. Applicants respectfully traverse the rejection.

Applicants respectfully traverse this rejection. There are three requirements that must be met in order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a) based on a single reference. There must be some suggestion or motivation in the prior art to modify the reference as suggested by the Examiner. The prior art must further provide a basis for a reasonable expectation of success resulting from any such suggested modification of the cited reference. Finally, the prior art reference, as allegedly modified, must teach or suggest all elements of the claimed invention. The teaching or suggestion to make the claimed modification and the reasonable expectation of success must both be found in the prior art, and not based on the applicants' disclosure. See M.P.E.P. §§ 2142-43 (August 2004).

Applicants respectfully submit that one of ordinary skill in the art would not have been motivated to combine Fujimoto with Corder to provide the particular configurations of claims 20 and 21 in order to successfully make the invention of those claims because the cited references give no motivation to modify Fujimoto and Corder to obtain the claimed invention and Fujimoto and Corder together do not teach all of the limitations in claims 20-21 herein.

Applicants have herein distinguished the Fujimoto reference from the claimed invention. In regard to Corder, this reference focuses on systems to automatically move a generally horizontal and closed panel to an upwardly angled open position. See all Figures 1-21. The claims in Corder involve various automated lifting mechanisms for below beltline applications. The claimed invention is strictly manual, with gas struts to supply manual assist and support in the closing direction. Further, Corder does not describe any particular composite panel or any reason/direction of a why a composite would be of a specified design.

Applicants agree with the Examiner that the Corder reference does discuss the use of the invention claimed in Corder to be used as a "trunk or deck lid, or a convertible roof tonneau cover". Column 1, lines 46 through 52. However, the invention in Corder (and the invention in Fujimoto) would need to be substantially modified so as to obtain the claimed invention. No motivation or direction exists to make these modifications as both Fujimoto and Corder have objectives which do not exist in the present invention. Moreover, Fujimoto is based on a desire for strength and collision integrity and Corder is an automatic system that would impart unwanted characteristics to the presently claimed invention.

Applicants submit that the taken together Fujimoto and Corder do not teach all of the limitations of the claimed invention as amended. Adding Corder to Fujimoto does not address the limitations which are not in Fujimoto as discussed herein. Specifically, neither Fujimoto or Corder teaches a composite panel having a substantially planar top panel adhered to a series of coplanar panels projections and adhered along the periphery of the panels for use as a tonneau cover.

Appreciating these differences, applicants respectfully submit that the Examiner has not established a prima facie case for obviousness and the rejection is improper and should be withdrawn.

**Claim Rejection Under §103(a) Based on Greve et al U.S. Patent No. 5,273,606 ("Greve") in view of Rashid**

The Examiner has rejected claims 1-2, 6-9, 14 and 24-25 under 35 U.S.C. § 103(a) as being unpatentable over Greve in view of Rashid. As discussed herein, the Examiner takes the position that Rashid teaches all of the elements of the claimed invention. The Examiner now takes the position the combination of Greve and Rashid render the claimed invention obvious. Applicants respectfully traverse the rejection.

The Examiner believes that Greve teaches a method of manufacturing a composite panel to be used in a variety of vehicle parts by forming a lower panel with a peripheral lip having raised projections, forming an upper panel having a substantially planar surface and a peripheral lip wherein the peripheral lips of the lower panel and upper panel fit snugly to form a composite panel. See Official Action dated August 17, 2006, page 6.

Applicants respectfully submit that Greve teaches a method to apply an adhesive by creating an integral flow channel for a liquid adhesive to flow through, thereby eliminating the need to apply adhesive to a panel side, and subsequently join the panels together. In Greve, the panels can be placed together first, with adhesive being injected later. Applicants submit no motivation exists to modify Greve or Rashid as discussed herein, alone or in combination to obtain the claimed invention. Specifically, Greve is not feasible for the application of adhesive since the flow channels described in Greve are limited to the edges and are not created alone or in combination with Rashid to obtain the thermoformable and aesthetically pleasing assembly as in the claimed invention. Applicants submit that the Examiner has extrapolated the text of

Greve, specifically, column 1 lines 13-14 and column 2 lines 60-63 which are general statements about bonding panels together, as a teaching or direction to the claimed invention. In contrast, the goal of the present invention is to create a lightweight panel cover that meets the specific performance requirements through the use of uniquely designed and engineered hollow segments. Clearly, other methods attaching panels exist but they would not meet the requirements of the materials and methods of the claimed invention. Simply, just because a reference mentions gluing two panels together, it does not constitute prior art.

Furthermore, even if feasible in the design of the claimed invention, the application of the adhesive as taught by Greve would result in inferior performance, since Greve only teaches the application of adhesive on the periphery, through a hem flange created in a secondary folding operation. (Column 3 lines 10-40). The strength would be inferior, since the interior sections where the truncated cone meets with the outer panel would not be bonded together. It is clear that Greve does not apply adhesive to all coplanar surfaces to join the first and second panels. As illustrated in the drawings and description, the adhesive is only around the periphery within the hem flange, not on other coplanar surfaces. Column 2, lines 18-28.

Appreciating these differences, applicants respectfully submit that the Examiner has not established a prima facie case for obviousness and the rejection is improper and should be withdrawn.

**Claim Rejection Under §103(a) Based on Greve and Rashid in view of Corder.**

The Examiner has rejected claims 20-23 under 35 U.S.C. § 103(a) as being unpatentable over Greve and Rashid in view of Corder. The Examiner takes the position that the panel of Greve and be used as a trunk lid as discussed in Corder. The applicants have canceled claims 22 and 23 which are not addressed herein. Applicants respectfully traverse the rejection.

Applicants reiterate their comments herein in regard to Rashed and Greve. In regard to the addition of Corder to the combination of Rashid and Greve, the applicants appreciate that Corder does mention the use of the panel described therein for use as a “trunk lid” but maintains the position that the panels discussed in Greve, Rashid and Corder taken in combination does not make obvious the claimed invention. The combination gives no motivation to modify or combine the references so as to obtain the claimed invention, does not recite all of the limitations of the claimed invention and does not explain any likelihood of success in combining the references as

discussed by the applicants herein. Further, the Examiner, in this specific rejection gives no additional reference to additional teaching or motivation specific for this combination. Further, the inclusion of Rashid is not explained. The Examiner has taken the position that the addition of Corder to the combination of Rashid and Greve addresses the specific tonneau claims. However, this does not address the shortcomings of the combination of Rashid and Greve as to the basic structure and claimed elements as discussed herein.

Appreciating these differences, applicants respectfully submit that the Examiner has not established a prima facie case for obviousness and the rejection is improper and should be withdrawn.

**Claim Rejection Under §103(a) Based on Sekarisia, U.S. Patent No. 5,124,191 (“Seksaria”) in view of Fujimoto and/or Greve**

The Examiner has rejected claims 1-3, 5-11, 13-14 and 24-25 under 35 U.S.C. § 103(a) as being unpatentable over Seksaria in view of Fujimoto and Greve. The Examiner has taken the position that Seksaria teaches a method of manufacture of a composition panel that can be used in a vehicle by forming a lower layer with projections forming a coplanar surface and adhering it to an upper layer. The Examiner recognizes that Seksaria does not teach a peripheral lip. Applicants respectfully traverse the rejection.

Seksaria teaches an aluminum/plastic composite for use wherever it is desired to have at least one exposed smooth metallic finish surface. Column 1, lines 24-26. Seksaria teaches cup segments which are irregular in shape, in contrast to the use of regular shapes having coplanar surfaces of the claimed invention. This is significant as it relates to the strength and structure differences which exist in Seksaria and the claimed invention. Further, Seksaria references sheet molding compound in contrast to the non reinforced thermoplastic as claimed and references a “read through” problem. Column 2 line 65. In contrast, the claimed invention does not use sheet molding compound, and by proper selection of the adhesive, avoids this “read through” problem. Therefore, the present invention substantially differs from Seksaria on our use of cup segments, adhesives, and material applications.

Applicants respectfully submit that no motivation exists to combine Greve, Fujimoto and Sekarisia to obtain the claimed invention. A review of the Seksaria patent would clearly teach that no need exists to have “peripheral lips”, for example, one goal of Seksaria is to allow the

inner layer to “flex” as the adhesive cures and shrinks. Column 2, lines 45-50. As the Seksaria is constructed to be used over heat source, i.e. a car engine, this is an important component in the material used which is contrary to that of the claimed invention. Column 2, lines 43-45.

In regard to claim 5 of the claimed invention, the Examiner takes the position that Seksaria teaches the use of projections of different height. Seksaria teaches a configuration that is not uniform but which is individually designed to depend on the strength in certain areas to accommodate randomly spaced components over which the structural panel is to be located. Column 1, lines 60-65. In contrast, the reduced height features/projections of the claimed invention are of a uniform size and necessitated by the method and configuration requirements of the claimed invention. As variation of the height of the second group of features/projections of the claimed invention is required for different reasons than those in Seksaria and are at a uniform height, they are clearly not equivalent to the projections discussed in Seksaria. So as to expedite allowance of these claims, the applicants have amended claim 5 to recite a uniformity in the projections of the reduced height thus clearly distinguishing the claimed invention from Seksaria.

In regard to the claims, applicants appreciate that Seksaria discusses the use of thermoformable material but disagrees that this discussion would support an argument to render the claimed invention obvious. The material used in Seksaria is a sheet molding compound which, as discussed herein, has certain problems. Applicants respectfully submit that the material in Seksaria would not be used in the claimed invention or would be a basis to motivate anyone skilled in the art to modify Seksaria to use the thermoplastic material to obtain the claimed invention.

Appreciating these differences, applicants respectfully submit that the Examiner has not established a prima facie case for obviousness and the rejection is improper and should be withdrawn.

**Claim Rejection Under §103(a) Based on Sekarisia, in view of Fujimoto and/or Greve in view of Blankenburg et al., U.S. Patent No. 4,906,508 (“B-508”) and Blankenburg et al., U.S. Patent No. 5,242,735 (“B-735”)**

The Examiner has rejected claims 3-4 and 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Sekarisia in view of Fujimoto and Greve. The Examiner has taken the



position that B-508 and B-735 teaches the configurations of the projections which could be used as support. Applicants respectfully traverse the rejection.

Applicants respectfully submit that it is appreciated that structural configurations can be used as support no matter what material is being used, i.e. paper, plastic, metal etc. However, the specific application where it may be used requires unique engineering and creative design, i.e. invention, to develop a functional system. The addition of the knowledge that these configurations exist adds no motivation to combine the cited references to obtain the claimed invention.

Appreciating these differences, applicants respectfully submit that the Examiner has not established a prima facie case for obviousness and the rejection is improper and should be withdrawn.

**Claim Rejection Under §103(a) Based on Sekarisia, in view of Fujimoto and/or Greve in view of Corder**

The Examiner has rejected claims 20-23 under 35 U.S.C. § 103(a) as being unpatentable over Sekarisia in view of Fujimoto and/or Greve in view of Corder. Applicants respectfully traverse the rejection.

Applicants have previously addressed the combination of Seksaria, Fujimoto and Greve herein. The addition of the Corder reference which mentions a possible use of the particular body panel therein to be used as a “trunk or deck lid” does not overcome the issues regarding modification of the references to obtain the claimed invention as discussed herein and the absence of teaching all of the limitations of the claimed invention.

Appreciating these differences, applicants respectfully submit that the Examiner has not established a prima facie case for obviousness and the rejection is improper and should be withdrawn.

**Secondary Considerations**

Finally, with regard to all of the above § 103 rejections, applicants submit that even if *prima facie* obviousness had been shown, which applicants maintain it has not, applicants' composite panels provide a long-felt need in the art for lightweight composite panels that are sufficiently strong and provide an upper generally planar surface and smooth exterior appearance on the sides of the panel for use in exterior and other surfaces of a vehicle which are subject to

exterior conditions and/or significant wear such as vehicle floorboards, tonneau covers, door and roof panels. Therefore, applicants respectfully submit that any such prima facie obviousness, is overcome by the uniqueness of the applicants' invention and the long-felt need in the art, and withdrawal of the rejections are respectfully requested.

In view of the foregoing, applicants submit that claims 1-5, 20,21,24 and 26-31 are patentable over cited references. Reconsideration and withdrawal of all rejections, and a Notice of Allowance are respectfully solicited.

Respectfully submitted,

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